TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID	:	**CP-RW-2020-01-14-01** **Date:16-01-2020**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Durga Parameshwari Layout and Surrounding areas in ward No.09(Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ningannagowda V Patil, #57/7, Sri.Krishna Nilaya, 2nd Main road, Ganganagar layout, Ganganagar, R.T.Nagar (P), Bangalore-560032.
Identification of Road		1st Cross Road
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	14-01-20
Sample ID No	:	2020-01-14-01/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	14-01-20

Sl.no	Description	Index	Trail 1
1	Weight of the Sample	A	500
2	Weight of the sample After extraction	B	474
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.2

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro
Sig..........
Date..........
BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Lab ID : **CP-RW-2020-01-14-01** **Date:16-01-2020**
Sample ID : **2020-01-14-01/01**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 474

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	0	0	0.0	100.0	79-100
9.5	19	19	4.0	96.0	70-88
4.75	210	229	48.3	51.7	53-71
2.36	188	417	88.0	12.0	42-58
1.18	38	455	96.0	4.0	34-48
0.6	5	460	97.0	3.0	26-38
0.3	3	463	97.7	2.3	18-28
0.15	3	466	98.3	1.7	12-20
0.075	3	469	98.9	1.1	4-10

Note:-

The results pertain to the samples received by the customer and tested
All information furnished by Customer/Representative.
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

AEE (VRP) SD

CIVIL Pro Sig........ Date........ BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

QC ABSTRACT

NAME OF WORK: Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
Materials						
1	Cement	Fineness by dry sieving	One Test		1	1
		Finess by Air permeablity method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
2	Coarse aggregate(40 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
3	Coarse aggregate(20 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
		Aggregate crushing Value	One Test		1	1
		Aggregate Impact Value	One Test		1	1
4	Fine aggregate	SIEVE ANALYSIS	One Test		1	1
		Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
5	Block(400*150*200)	BLOCK DENSITY	One Test		1	1
		WATER ABSORPTION	One Test		1	1
		DIMENSION ANALYSIS	One Test		1	1
		COMPRESSIVE STRENGTH	One Test		1	1
6	Precast (250mm)	Core Compressive Strength	One Test		1	1
		Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
7	PCC(M15)	Compressive Strength(7days and 28days)	3 set /16-30 cum	49.7	6	6

AEE (VRP) SD

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

8	WMM	Sieve Analysis	One Test		1	1
		Impact Value	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
9	BC	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
10	BITUMEN	Ductility	One Test		1	1
		Softening Point	One Test		1	1
		Penetration	One Test		1	1
		Flash Point	One Test		1	1
		Fire Point	One Test		1	1
11	TACK COAT	Rate of spread	One Test		1	1
12	BM	SIEVE ANALYSIS				
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral Aggregate	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1

AEE (VRP) SD

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2020-01-29-78** **Date: 12-12-19**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP,
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	09-12-19
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	10-12-19
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.54	_
2	Finess by Air permeablity method (m^2/kg,Min)	287.5	225m^2/kg, Min
3	Density (gm/cc)	3.11	_
4	Standard Consistency (%)	28.5%	Not specified
5	Initial Setting time	155 minutes	Not less than 30 minutes
6	Final Setting time	260 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	2mm	Not more than 10 mm

Note:

The results pertain to the samples received and tested.

All information furnished by Customer/Representative

Any correction in the report will make this report invalid

This report without prior written approval should not be reproduced or published in full or part.

Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R. Rudraprasad

R RUDRAPRASAD
Authorized Signatory
Technical Manager

AEE (VRP) SD

CIVIL Pro BANGALORE Sig........ Date........

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : **CP-2020-01-29-78** **Date: 07-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer's Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 09-12-19

Sample Type : Birla Super 53grade

Reference to BIS codes : IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ,
IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5
IS 4031 Part 6, Determination of Compressive Strength, Clause 6

Date of test : 10-12-19

Environmental Conditions during test : Temperature: 26˚C
Humidity: 72%

Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	28.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.0N/mm^2	Not less than 37 N/mm^2
3	28 Days	58.5N/mm^2	Not less than 53 N/mm^2

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig........ Date........

Page 1/1
****End of Report****

CIVIL PRO

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-01-29-78** **Date: 12-12-19**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample condition	:	Satisfactory
Date of Receipt	:	09-12-19
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	09-12-19

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : **15000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	318	318	2.1	97.9	90-100
3	20 mm	7441	7759	51.7	48.3	30-70
4	10 mm	5152	12911	86.1	13.9	10-35
5	4.75 mm	1711	14622	97.5	2.5	0-5
6	Pan	378	15000	100.0	0	---

AEE (VRP) SD

CIVIL Pro Sig. Date

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2020-01-29-78** **Date: 12-12-19**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	8.3	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	7.6	
3	Specific Gravity	2.61	_
4	Bulk Density(Loose) (Kg/l)	1.38	_
5	Bulk Density(Compacted) (Kg/l)	1.42	_
6	Water Absorption(%)	0.26	_

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

AEE (VRP) SD

CIVIL Pro Sig. Date. BANGALORE

****End of Report****

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-01-29-78**	**Date: 11-12-19**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.	
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.	
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032	
Customer Reference	:	BBMP/EE/WO/118/2019-20	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	09-12-19	
Sample Type/ Size	:	20mm down size coarse aggregate	
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties	
Date of test	:	09-12-19	

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : **5000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	255	255	5.1	94.9	90-100
3	10 mm	2789	3044	60.9	39.1	25-55
4	4.75 mm	1545	4589	91.8	8.2	0-10
5	Pan	411	5000	100	0	–

CIVIL Pro Sig. Date. BANGALORE

AEE (VRP) SD

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2020-01-29-78** **Date: 11-12-19**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	13.2	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	12.4	
3	Specific Gravity	2.65	–
4	Bulk Density(Loose) (Kg/l)	1.53	–
5	Bulk Density(Compacted) (Kg/l)	1.55	–
6	Water Absorption(%)	0.25	–
7	Aggregate crushing Value(%)	24.1	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	23.8	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro
Sig.............
Date.............
BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2020-01-29-78** **Date: 11-12-19**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in [illegible]
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	09-12-19
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	09-12-19
Total weight taken	:	1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	27	27	2.7	97.3	90-100	90-100	90-100	95-100
3	2.36 mm	55	82	8.2	91.8	60-95	75-100	85-100	95-100
4	1.18 mm	239	321	32.1	67.9	30-70	55-90	75-100	90-100
5	600 micron	205	526	52.6	47.4	15-34	35-59	60-79	80-100
6	300 micron	203	729	72.9	27.1	5-20	8-30	12-40	15-50
7	150 micron	191	920	92.0	8.0	0-10	0-10	0-10	0-15
8	Pan	80	1000	100.0	0.0	---	---	---	---
Result :The tested Sample Conforms to Grading Zone II									

AEE (VRP) SD

CIVIL Pro
Sig.............
Date.............
BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2020-01-29-78** **Date: 11-12-19**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.5	_
2	Specific Gravity	2.59	_
3	Material finer than 75 micron(%)	6.9	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro
Sig.......................
Date.....................
BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT ON PHYSICAL REQUIREMENTS OF SOLID CONCRETE BLOCKS

Lab ID	:	**CP-2020-01-29-78** **Date: 20-12-19**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-12-19
Sample Type/Size	:	Solid concrete blocks size (400X150X200)mm
Reference to BIS codes	:	IS : 2185 (Part 1) : 2005(RA 2010) Concrete Masonry Specification Part 1:Hollow and Solid Concrete Blocks (Dimensions -Annex-B, Clause 9.2 and 10 , Block density Annex -C Clause 9.3 and10, Compressive strength Annex -D Clause 9.4 and 10, Water absorption Annex -E Clause 9.5 and 10)
Date of test	:	17-12-19

BLOCK DENSITY:

Sl. No.	Measurement of overall Dimensions of Individual Blocks			Overall Volume of the Block in Cubic Centimetres	Weight of Oven Dried Block in Kilograms to the nearest 10 Gram	Block Density in Kg/cum*10^6	Avg.Block Density in (Kg/cum)	As per IS 2185(Part 1) :2005 (RA 2010)
	Length	Breadth	Height					
	mm	mm	mm	(Cm^3)	Kg	Kg/m^3	Kg/m^3	
1	398	151	201	12080	32.881	2722.0	2731.1	Not less than 1800Kg/m^3
2	405	149	198	11948	33.567	2809.4		
3	399	150	201	12030	32.023	2661.9		

WATER ABSORPTION:

Sl. No.	Wet weight after water absorption	Dry weight (Oven dry)	Water Absorption	Avg.Water Absorption	As per IS 2185(Part 1):2005 (RA 2010)
	kg	kg	%	%	
1	33.91	32.25	4.89	4.25	Shall not be more than 10% by mass
2	33.57	32.14	4.28		
3	33.44	32.24	3.59		

AEE (VRP) SD

CIVIL Pro
Sig.............
Date.............
BANGALORE

Lab ID : **CP-2020-01-29-78** **Date: 20-12-19**

DIMENSION ANALYSIS

Sl.no	Length mm	Breadth mm	Height mm	Requirement as per IS 2185(Part 1):2005
1	402	150	202	Length : ± 5mm Breadth : ± 3mm Height : ± 3mm
2	399	149	202	
3	402	148	201	
4	399	151	201	
5	400	150	202	
6	401	148	201	
7	401	149	199	
8	401	151	201	
9	402	150	202	
10	400	151	202	
11	403	149	201	
12	400	148	201	
13	400	149	199	
14	402	150	202	
15	404	151	199	
16	402	150	203	
17	402	149	202	
18	404	148	203	
19	402	150	202	
20	400	151	199	
Average of 20	**401**	**150**	**201**	

AEE (VRP) SD

CIVIL Pro
Sig.................
Date................
BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Lab ID : **CP-2020-01-29-78** **Date: 20-12-19**

COMPRESSIVE STRENGTH:

Sl. No.	Size of solid block		Area	Failure Load	Compressive strength	Average Compressive strength
	Length	Breadth				
	mm	mm	(mm^2)	(KN)	N/mm^2	(N/mm^2)
1	400	150	60000	415.2	6.9	6.9
2	399	149	59501	411.5	6.9	
3	402	148	59507	400.9	6.7	
4	399	151	60262	416.5	6.9	
5	400	150	60042	406.7	6.8	
6	401	148	59295	400.0	6.7	
7	401	149	59688	415.0	7.0	
8	401	151	60537	418.5	6.9	

As per IS Requirements (Table 2, Clause 5.1, 5.2 and 9.4)

Compressive strength		
Grade	**Minimum average**	**Minimum Individual units.**
C (5.0)	5.00 N/mm^2	4.00 N/mm^2
C (4.0)	4.00 N/mm^2	3.20 N/mm^2

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

CIVIL Pro Sig. Date. BANGALORE

R RUDRAPRASAD
Authorized Signatory
Technical Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF PRECAST COVER SLAB

Lab ID : **CP-2020-01-29-78** **Date: 26-12-19**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer's Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 21-12-19

Sample Type /Size : Precast Cover Slab (250mm)

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete

Date of test : 21/12/2019

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
1	Cover Slab-1	200.51	250.48	2.516	31570	200.9	6.4	5.9	7.4
2	Cover Slab-2	200.49	250.52	2.522	31564	202.3	6.4	6.0	7.5
3	Cover Slab-3	200.50	250.51	2.518	31567	201.5	6.4	5.9	7.4

Note:

The results pertain to the samples received and tested.
All information furnished by the Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig........ Date........

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-01-29-78** **Date: 20/12/2019**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer's Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 16-12-19

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 20/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)	(Sq.mm)	(kg)	(KN)	(N/mm^2)	(N/mm^2)
1	PCC	M15	13/12/2019	20/12/2019	151.10 X 149.30 X 150.26	22559	**8.788**	275.4	12.2	12.5
2	PCC	M15	13/12/2019	20/12/2019	150.03 X 150.08 X 149.18	22517	**8.951**	282.0	12.5	
3	PCC	M15	13/12/2019	20/12/2019	149.98 X 151.63 X 150.01	22741	**8.154**	290.6	12.8	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro
Sig.................
Date...............
BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-01-29-78** **Date: 10/01/2020**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer's Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 16-12-19

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 10/01/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	13/12/2019	10/01/2020	151.07 X 150.54 X 149.77	22742	**8.624**	392.9	17.3	17.4
2	PCC	M15	13/12/2019	10/01/2020	151.19 X 149.14 X 151.48	22548	**8.860**	404.4	17.9	
3	PCC	M15	13/12/2019	10/01/2020	149.47 X 149.89 X 150.84	22405	**8.012**	381.5	17.0	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig.......... Date.......... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	:	**CP-2020-01-29-78** **Date: 20/12/2019**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	16-12-19
Customer ID	:	PCC
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M15 / 7 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	20/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	13/12/2019	20/12/2019	150.58 X 149.16 X 151.73	22460	**8.788**	285.0	12.7	12.8
2	PCC	M15	13/12/2019	20/12/2019	150.83 X 149.20 X 150.51	22504	**8.951**	291.8	13.0	
3	PCC	M15	13/12/2019	20/12/2019	149.98 X 150.69 X 151.01	22601	**8.154**	289.3	12.8	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig........ Date........

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	:	**CP-2020-01-29-78** **Date: 10/01/2020**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	16-12-19
Customer ID	:	PCC
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M15 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	10/01/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)	(Sq.mm)	(kg)	(KN)	(N/mm^2)	(N/mm^2)
1	PCC	M15	13/12/2019	10/01/2020	149.93 X 151.82 X 149.64	22762	**8.624**	389.3	17.1	17.2
2	PCC	M15	13/12/2019	10/01/2020	149.82 X 149.51 X 151.82	22399	**8.860**	385.8	17.2	
3	PCC	M15	13/12/2019	10/01/2020	150.05 X 151.48 X 150.87	22730	**8.012**	389.5	17.1	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-01-29-78** **Date: 20/12/2019**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer's Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 16-12-19

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 20/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)	(Sq.mm)	(kg)	(KN)	(N/mm^2)	(N/mm^2)
1	PCC	M15	13/12/2019	20/12/2019	149.05 X 150.30 X 150.22	22402	**8.788**	284.0	12.7	12.6
2	PCC	M15	13/12/2019	20/12/2019	150.60 X 151.62 X 149.59	22834	**8.951**	290.0	12.7	
3	PCC	M15	13/12/2019	20/12/2019	151.89 X 150.03 X 150.23	22788	**8.154**	283.9	12.5	

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig.......... Date.......... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 10/01/2020

Lab ID	:	**CP-2020-01-29-78**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	16-12-19
Customer ID	:	PCC
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M15 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	10/01/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm²)	Average Compressive Strength (N/mm²)
1	PCC	M15	13/12/2019	10/01/2020	150.81 X 150.61 X 151.19	22713	**8.624**	405.3	17.8	17.5
2	PCC	M15	13/12/2019	10/01/2020	151.77 X 151.76 X 149.71	23033	**8.860**	392.8	17.1	
3	PCC	M15	13/12/2019	10/01/2020	151.39 X 151.35 X 149.21	22913	**8.012**	405.1	17.7	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig.............. Date..............

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 01-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	30-12-19
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	30-12-19
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	315	315	2.9	97.1	95-100
22.4	2259	2574	23.4	76.6	60-80
11.2	2179	4753	43.2	56.8	40-60
4.75	2251	7004	63.7	36.3	25-40
2.36	1621	8625	78.4	21.6	15-30
0.6	623	9248	84.1	15.9	8-22
0.075	1338	10586	96.2	3.8	0-5

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig........ Date........

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST REPORT OF AGGREGATE IMPACT VALUE
IS: 2386 Part IV

Lab ID : CP-RW-2020-01-29-78 **Date: 01-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 30-12-19

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 30-12-19

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
5	Aggregate impact value	(B/A)*100	24.6	24.7
6	Aggregate impact value (Mean of two tests)	Pecentage	24.6	

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig........ Date........

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 01-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	30-12-19
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	30-12-19

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2020-01-29-78** **Date: 13-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 11-01-20

Type of Mix : BM-Plant (Bituminous Macadam)

Date of test 11-01-20

Weight of Sample(gm) : 5000

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	165	165	3.3	96.7	90-100
13.2	512	677	13.5	86.5	56-88
4.75	2759	3436	68.7	31.3	16-36
2.36	911	4347	86.9	13.1	4-19
0.3	358	4705	94.1	5.9	2-10
0.075	232	4937	98.7	1.3	0-8
PAN	63	5000	100.0	0.0	0

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS MACADAM

Lab ID	:	**CP-RW-2020-01-29-78** — **Date: 14-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	11-01-20
Type of Mix	:	BM (Bituminous Macadam)
Date of test	:	11-01-20

Table 500-6 : Physical Requirements fo Coarse Aggregate for Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	13.8	Combined Flakiness & Elongation Index for BM is Maximum 35%	IS:2386 Part I
	Elongation Index	7.2		
Strength	Aggregate Impact Value	25.2	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.51	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.17	Maximum 2%	IS:2386 Part III

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

AEE (VRP) SD

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig.......... Date..........

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID : CP-RW-2020-01-29-78 **Date: 14-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 11-01-20

Type of Mix : BM(Bitumnous Macadam)

Date of test : 11-01-20

Type of Binder : 60/70

% of Binder Used : 5.0%

Weight of Aggregate : 200.0 gm

Weight of Binder : 10.0 gm

Temperature of water bath : 40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

AEE (VRP) SD

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig.......... Date.......... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 14-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	11-01-20
Type of Mix	:	BM (Bituminous Mecadam)
Date of test	:	11-01-20

The results of the tests conducted on the Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.29	11.82	9KN(Min)
2	Marshal flow at 60°C, mm	3.54	3.87	2-4
3	Percent air Voids	4.56	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.54	14.76	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	70.28	65-75
6	Density, g/cc	2.42	2.40	–

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro BANGALORE Sig........ Date........

Page 1/1
End of Report

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2020-01-29-78** **Date: 27-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Date of Receipt : 25-01-20

Type of Mix : BM (Bituminous Macadam)

Date of test : 25-01-20

Sl.no	**Description**	**Index**	**Trail 1**	**Trail 2**
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	470	465
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6	7.00
4	Average percentage	%	6.50	

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro
Sig..........
Date..........
BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Lab ID : **CP-RW-2020-01-29-78** **Date: 27-01-20**

AFTER EXTRACTION(Trail-1)

Weight of Sample : 470 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	38	38	8.1	91.9	90-100
13.2	147	185	39.4	60.6	56-88
4.75	191	376	80.0	20.0	16-36
2.36	28	404	86.0	14.0	4-19
0.3	32	436	92.8	7.2	2-10
0.075	31	467	99.4	0.6	0-8

AFTER EXTRACTION(Trail-2)

Weight of Sample : 465 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	38	38	8.2	91.8	90-100
13.2	147	185	39.8	60.2	56-88
4.75	191	376	80.9	19.1	16-36
2.36	28	404	86.9	13.1	4-19
0.3	32	436	93.8	6.2	2-10
0.075	29	465	100.0	0.0	0-8

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

AEE (VRP) SD

CIVIL Pro Sig........ Date........ BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2020-01-29-78 **Date: 20-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-01-20
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	18-01-20
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig......... Date......... BANGALORE

Page 1/1
End of Report

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 21-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-01-20
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	18-01-20

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

AEE (VRP) SD

CIVIL Pro Sig........ Date........ BANGALORE

R RUDRAPRASAD
Authorized Signatory
Technical Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 21-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-01-20
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	18-01-20

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.4	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	11.8		
Strength	Aggregate Impact Value	22.1	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.68	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.21	Maximum 2%	IS:2386 Part III

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

AEE (VRP) SD

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 21-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	18-01-20
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	18-01-20

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.14	11.13	10KN(min)
2	Marshal flow at 60°C, mm	3.52	3.51	2-4
3	Percent air Voids	4.82	4.83	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
5	Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
6	Density, g/cc	2.25	2.26	–

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

AEE (VKP) SD

CIVIL Pro Sig.......... Date.......... BANGALORE

Page 1/1
End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO

AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005

4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : CP-RW-2020-01-29-78 **Date: 28-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer Reference : BBMP/EE/WO/118/2019-20

Source of Sample : Sample supplied by Agency

Date of Receipt : 26-01-20

Type of Mix : BC (Bituminous Concrete)

Date of test : 26-01-20

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	501
2	Weight of the sample After extraction	B	477	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	4.60	4.99
4	Average percentage	%	4.8	

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

AEE (VRP) SD

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Lab ID : CP-RW-2020-01-29-78

Date: 28-01-20

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 477

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.8	86.2	70-88
4.75	112	178	37.3	62.7	53-71
2.36	88	266	55.8	44.2	42-58
1.18	29	295	61.8	38.2	34-48
0.6	11	306	64.2	35.8	26-38
0.3	46	352	73.8	26.2	18-28
0.15	45	397	83.2	16.8	12-20
0.075	55	452	94.8	5.2	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 476

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.9	86.1	70-88
4.75	112	178	37.4	62.6	53-71
2.36	88	266	55.9	44.1	42-58
1.18	29	295	62.0	38.0	34-48
0.6	11	306	64.3	35.7	26-38
0.3	46	352	73.9	26.1	18-28
0.15	45	397	83.4	16.6	12-20
0.075	55	452	95.0	5.0	4-10

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro
Sig.............
Date............
BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2020-01-29-78** **Date: 08-01-20**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.
Agency	:	Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032
Customer's Reference	:	BBMP/EE/WO/118/2019-20
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	07-01-20
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
Date of test	:	07-01-20

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**64**	60 to 70
2	Softening Point, °C	**51.2**	Min. 40°C
3	Ductility, cm	**98**	Min. 75cm
4	Flash point, °C	**246**	Min. 220°C
	Fire point, °C	**272**	

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

AEE (VRP) SD

FOR CIVIL Pro.
R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : **CP-RW-2020-01-29-78** **Date: 27-01-20**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements and Asphalting to Roads at Sapthagiri Layout and Surrounding Areas in Ward No. 09 (Vidyaranyapura) Vidyaranyapura Sub Division.

Agency : Sri. Ninganagowda V Patil #57/7, Sri. Krishna Nilaya, 2nd Main, Road Ganganagara layout, Ganganagara, R.T. Nagara (P) Bangalore-560032

Customer Reference : BBMP/EE/WO/118/2019-20

Sample Condition : Satisfactory

Date of Receipt : 26-01-20

Type of Mix : Tack coat

Date of test : 26-01-20

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R RUDRAPRASAD
Authorized Signatory
Technical Manager

CIVIL Pro Sig........ Date........ BANGALORE

End of Report

AEE (VRP) SD

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |